

Copy of Pending Claims

Claims 1 and 2 (Cancelled)

3. (Withdrawn) The method according to claim 1, optionally comprising the steps of contacting a population of antigen presenting cells with said tolerogenic peptide sequence and said target antigen, and subsequently contacting said cell population with said population of antigen presenting cells wherein said mononuclear leukocytes are contacted with said tolerogenic peptide sequence and said target antigen *in vitro*.

4. (Withdrawn) The method according to claim 3, wherein said cell population or a subset thereof is re-administered to said subject after contacting with said tolerogenic peptide sequence and said target antigen.

5. (Withdrawn) The method according to claim 2, wherein said population of antigen presenting cells is contacted with said tolerogenic peptide sequence and said target antigen *in vitro* and said cell population is contacted with said population of antigen presenting cells *in vivo*.

6. (Previously presented) The method according to claim 47, wherein said tolerogenic peptide sequence and said target antigen are administered directly to said subject.

7. (Previously presented) The method according to claim 47, wherein the tolerogenic peptide sequence comprises one or more of the sequences P2, P4, P7, P14, P15, P18, P20, P22, P23, P24 and P32.

8. (Withdrawn) A pharmaceutical composition for tolerisation of an individual against a target antigen, said composition comprising a molecule selected from the group

consisting of EBV LMP1, LMP2, a tolerogenic peptide sequence thereof, or a nucleic acid encoding the same wherein the composition further comprises the target antigen or a nucleic acid encoding the target antigen in a pharmaceutically acceptable carrier, and wherein the individual has previously been infected with EBV.

9. (Withdrawn) The composition according to claim 8, wherein the composition comprises the target antigen or a nucleic acid encoding the target antigen.

10. (Withdrawn) The composition according to claim 8 wherein the target antigen is a cell.

11. (Withdrawn) The composition according to claim 10 wherein the cell is for transplantation.

12. (Withdrawn) The composition according to claim 11 wherein the cell comprises nucleic acid encoding the tolerogenic peptide sequence.

13. (Withdrawn) The composition according to claim 8 wherein the tolerogenic peptide sequence comprises one or more of the sequences P2, P4, P7, P14, P15, P18, P20, P22, P23, P24 and P32.

14. (Cancelled)

15. (Withdrawn) A method for assessing the tolerogenicity of a test peptide sequence from an infectious agent, comprising the steps of:

- (i) contacting a cell population with said test peptide sequence,
- (ii) determining whether IL-10 expression in said cell population is increased, and optionally
- (iii) correlating the result of step (ii) with the

tolerogenicity of the sequence, wherein said infectious agent is optionally a virus and said cell population comprises mononuclear leukocytes from a donor previously infected by said infectious agent.

16. (Withdrawn) The method according to claim 15, wherein said cell population comprises at least one type of antigen presenting cell.

17. (Withdrawn) The method according to claim 15, wherein said cell population optionally comprises at least one type of antigen presenting cell and said mononuclear leukocytes comprise at least one cell type selected from the group consisting of T lymphocytes, B lymphocytes, natural killer (NK) cells, monocytes, macrophages or dendritic cells.

18. (Withdrawn) The method according to claim 17, wherein said mononuclear leukocytes comprise at least CD4⁺ T lymphocytes.

19. (Withdrawn) The method according to claim 18, wherein said mononuclear leukocytes further comprise at least one type of antigen presenting cell.

20. (Withdrawn) The method according to claim 15, further comprising the steps of:

(i) (a) contacting a similar cell population from a donor not previously infected by said infectious agent with said test peptide sequence, said cell population optionally comprising at least one type of antigen presenting cell and said infectious agent optionally being a virus; and

(ii) (a) determining whether IL-10 expression in said cell population is increased, and optionally

(ii) (b) comparing the results from step (ii) with the results from step (ii) (a).

21. (Withdrawn) The method according to claim 15, wherein the infectious agent is a virus.

22. (Withdrawn) The method according to claim 21, wherein the virus is a herpesvirus encoding a viral IL-10 homologue.

23. (Withdrawn) The method according to claim 22, wherein the virus is EBV.

24. (Withdrawn) The method according to claim 23, wherein the test peptide sequence is derived from EBV LMP1 protein or LMP2 protein.

25. (Withdrawn) The method according to claim 24, wherein the test or tolerogenic peptide sequence comprises one or more of the sequences P1 to P75 or P1' to P96'.

26. (Withdrawn) A method for assessing the tolerogenicity of a test peptide sequence from an infectious agent towards a target antigen, comprising the steps of:

(i) contacting a cell population with (a) said test peptide sequence and (b) a target antigen, to make a test composition,

(ii) re-contacting the cell population from said test composition with said target antigen in the absence of said test peptide sequence,

(iii) assessing cell proliferation or expression of IL-4, IL-2, IL-12 or gamma-IFN by said cell population in response to said target antigen, and optionally

(iv) correlating the result of step (iii) with the tolerogenicity of the test peptide sequence, wherein said cell population comprises mononuclear leukocytes from a donor previously infected by said infectious agent.

27. (Withdrawn) The method according to claim 26, further comprising the step of adding fresh antigen presenting cells

prior to step (ii).

28. (Withdrawn) The method according to claim 26 optionally comprising the step of adding fresh antigen presenting cells prior to step (ii), said method further comprising the step of contacting the cell population with a confirmatory antigen unrelated to the test sequence or the target antigen.

29. (Withdrawn) The method according to claim 26, wherein the infectious agent is a virus.

30. (Withdrawn) The method according to claim 29, wherein the virus is a herpesvirus encoding a viral IL-10 homologue.

31. (Withdrawn) The method according to claim 30, wherein the virus is EBV.

32. (Withdrawn) The method according to claim 31, wherein the test peptide sequence is derived from EBV LMP1 protein or LMP2 protein.

33. (Withdrawn) The method according to claim 32, wherein the test or tolerogenic peptide sequence comprises one or more of the sequences P1 to P75 or P1' to P96'.

34. (Withdrawn) A method for assessing the tolerogenicity of a test peptide sequence, comprising the steps of:

(i) contacting a first cell population with said test peptide sequence,

(ii) contacting a second cell population with a control peptide sequence

(iii) determining whether IL-10 expression in each said cell population is increased and optionally

iv) correlating the result of step (iii) with the tolerogenicity of the test peptide sequence, wherein each said

cell population comprises mononuclear leukocytes from a donor previously infected by an infectious agent, and said control peptide sequence is derived from said infectious agent.

35. (Withdrawn) The method according to claim 34 wherein said control peptide sequence has previously been identified to induce IL-10 expression in a cell population comprising mononuclear leukocytes from a donor previously infected by said infectious agent, said infectious agent optionally being EBV.

36. (Withdrawn) The method according to claim 34, wherein said control peptide sequence has previously been identified to induce IL-10 expression in a cell population comprising mononuclear leukocytes from a donor previously infected by said infectious agent and wherein said first and second cell populations are derived from the same donor, said infectious agent optionally being EBV.

37. (Withdrawn) The method according to Claim 36, wherein said first and second cell populations comprise a T cell clone capable of proliferating in response to the control peptide.

38. (Withdrawn) The method according to claim 34, wherein said infectious agent is EBV.

39. (Withdrawn) The method according to claim 34, wherein said control peptide is derived from LMP1 or LMP2.

40. (Withdrawn) A peptide having the sequence of any one of P2, P4, P5, P6, P7, P8, P9, P10, P12, p13, p14, p15, p16, P17, P18, P20, P22, P23, P24, P25, P26, P27, P29, P30, P32, P34, P35, P39, P68, P71, and P72.

41. (Previously presented) The method according to claim

47, wherein said tolerogenic peptide sequence and said target antigen are in a complex.

42. (Previously presented) The method according to claim 47, wherein said tolerogenic peptide sequence and said target antigen are covalently linked.

43. (Previously presented) The method according to claim 42, wherein said tolerogenic peptide sequence and said target antigen comprise a fusion protein.

44. (Withdrawn) The composition according to claim 8, wherein said tolerogenic peptide sequence and said target antigen are in a complex.

45. (Withdrawn) The composition according to claim 8, wherein said tolerogenic peptide sequence and said target antigen are covalently linked.

46. (Withdrawn) The composition according to claim 45, wherein said tolerogenic peptide sequence and said target antigen comprise a fusion protein.

47. (Previously presented) A method of prophylaxis or treatment of a disease or condition mediated by an immune response against a target antigen in an individual previously infected by EBV, the method comprising administering to the individual:

(a) the target antigen, or a nucleic acid encoding said target antigen such that said target antigen is expressed in said individual; and

(b) a tolerogenic peptide sequence from EBV-encoded LMP1 protein or an EBV-encoded LMP2 protein, or a nucleic acid encoding said tolerogenic peptide sequence which differs from the target antigen of step a) such that said tolerogenic peptide sequence is expressed in said individual thereby

inducing immune tolerance to said target antigen in said individual.

48. (Previously presented) The method according to claim 47 wherein said disease or condition is an autoimmune disease and the target antigen is a self antigen against which an immune response occurs in said autoimmune disease.

49. (Previously presented) The method according to claim 47 wherein said disease or condition comprises an atopic or allergic immune response and said target antigen is an antigen which provokes said atopic or allergic immune response.

50. (Previously presented) The method according to claim 47 wherein said disease or condition is graft rejection, and said target antigen is an antigen expressed by an allogeneic or xenogeneic cellular transplant.